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Some unremembered type specimens of Bromeliaceae in East German herbaria

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A b s t r a c t: The presence of several type specimens of Bromeliaceae not cited in the most recent monograph is reported. A lectotype has been chosen for *Billbergia nutans* H. WENDL., the correct lectotype has been stated for *Tillandsia paniculata* SCHLTDL. & CHAM., the correct type citation is given for *Tillandsia reclinata* E. PEREIRA & MARTINELLI, the erroneous citation of the type locality for *Tillandsia edithae* RAUH is corrected, and a new Author combination is proposed for *Bromelia landbeckii* LECHL. ex GRISEB.

Introduction

During the past few years I had the opportunity to study the holdings of Bromeliaceae of several herbaria of the former German Democratic Republic. Although the total amount of specimens was rather low in most cases, an astonishing lot of type specimens was detected. The results are presented in the following alphabetical account.

Material and Methods

Specimens of the following herbaria have been studied (acronyms according to HOLMGREN & al., 1990): BHUPM, DR, GAT, GFW, GLM, HAL, and ROST. I thank all the directors and curators of the mentioned herbaria for making available their specimens to me. It must be stressed that "WEB" is not an official acronym but W. Weber's abbreviation for his private herbarium which he used in his descriptions. The protologue references are in accordance with LAWRENCE & al. (1968) and BRIDSON & SMITH (1991), nomenclature follows LUTHER & SIEFF (1991) and KIFF (1991), and author abbreviations follow BRUMMITT & POWELL (1992).

Results

Bromelioideae

Aechmea wrightii BAKER

J. Bot. 17: 163 (1879). Cuba, C. Wright 1525 (BHUPM, isotype).

Note: Currently treated as a synonym of *Hohenbergia penduliflora* (A. RICH.) MEZ.

Billbergia nutans H. WENDLAND

Gartenflora 18: 162, tab. 617 (1869).

Kultiviert im Berggarten Herrenhausen, Hannover, 1872 (DR, lectotype: here designated).

Note: The court gardener H. Wendland had cultivated this species in the Herrenhausen garden in Hannover and had published it as a novelty. Some living material had been brought to the garden of the university of Dresden where it had flowered in 1872. No specimen exists in Hannover nor has been hitherto traced in any herbarium. As the plant in DR doubtlessly is clonotypic it is proposed here as the lectotype.

Billbergia odora MIQUEL

Linnaea 18: 377 (1844).

Billbergia odora MiQ., Surinam, H.C. Focke s.n. (HAL, isotype).

Note: Although Focke's collection number "861" and the locality "Tourtonne" are missing there is no doubt that the specimen in HAL is a duplicate from Focke's original collection. Currently treated as a synonym of *Aechmea lingulata* (L.) BAKER var. *lingulata*.

Bromelia landbeckii LECHLER ex GRISEBACH

in W. Lechler pl. chilens. ed. R.F. Hohenacker no. 3098 (in sched.)

A *B. sphacelata* recedit bracteis exterioribus latioribus inermibus. - Griseb. - In silvis umbrosis humidis pr. Colico prov. Valdiv. fbr. 1855 (GFW, isotype).

Note: The label is an indelible autograph which bears a binomial of Lechler and a diagnosis by Grisebach. According to Art. 30.1 ICBN (1994) this represents a valid publication. HOHENACKER (1853) stated that all collections of Lechler from Chile offered by him for sale had been revised by A. Grisebach. Although no exact year of distribution is known it must have been delivered before 1864, the year when Linnaea vol. 33 had been issued where R.A. Philippi re-published Lechler's name on the basis of the distributed autograph. The authorship must therefore be changed in favor of Grisebach. The species is currently named *Greigia landbeckii* (LECHL. ex GRISEB.) PHIL.

Bromelia surinamensis MIQUEL

Linnaea 18: 378 (1844).

Bromelia surinamensis MiQ., Surinam, H.C. Focke s.n. (HAL, isotype).

Note: Although Focke's collection number "808" and the locality "Tourtonne" are missing there is no doubt that the specimen in HAL is a duplicate from Focke's original collection. Currently treated as a synonym of *Aechmea aquilega* (SALISB.) GRISEB. var. *aquilega*.

***Neoregelia schubertii* ROETH**

Trop. Subtrop. Pflanzenwelt 42: 31, Abb. 18-20 (1983).

Östliches Brasilien, cult. in Horto Botanico Halensi Warmhaus (leg. K. Werner 13.6.1982), A. & M. Bleher s.n. (HAL, holotype, isotypes: 2 sheets).

***Tillandsia vestita* WILLDENOW ex SCHULTES & SCHULTES f.**

in Roem. & Schult., Syst. veg. 7(2): 1228 (1830).

e Para Brasilia misit Sieber c. a Hoffmansegg, s.n. (HAL, isotype).

N o t e : Currently treated as a synonym of *Macrochordium bromeliifolium* (RUDGE) BEER.

Pitcairnioideae

***Hechtia pringlei* ROBINSON & GREENMAN**

Amer. J. Sci. III.50: 167 (1895).

Mexico, State of Oaxaca, calcareous hills near Oaxaca, 13 May 1894, C.G. Pringle 4637 (BHUPM, isotype).

N o t e : Currently treated as a synonym of *Hechtia stenopetala* KLOTZSCH.

***Pitcairnia cylindrostachya* L.B. SMITH**

Contr. Gray Herb. 117: 25, pl. 2, figs. 14, 15 (1937).

Mexico, State of Jalisco, rocky bluffs of barranca near Guadalajara, 5 October 1891, C.G. Pringle 3884 (BHUPM, isotype).

Tillandsioideae

***Platystachys ehrenbergii* K. KOCH**

Appendix Quartum Indicem Seminum Horti Bot. Berol. "1873": 5 (1874).

St. Thomas, C. Ehrenberg j. 214 (HAL, syntypes: 2 sheets).

N o t e : Currently treated as a synonym of *Tillandsia utriculata* L. subsp. *utriculata* fa. *utriculata*.

***Tillandsia achyrostachys* E. MORREN ex BAKER var. *stenolepis* L.B. SMITH**

Contr. U.S. Natl. Herb. 29: 505, fig. 68e (1951).

Mexico, State of Jalisco, hills near Guadalajara, on Burseras, 25 June 1892, C.G. Pringle 4111 (BHUPM, isotype of the variety).

***Tillandsia caespitosa* SCHLECHTENDAL & CHAMISSO**

Linnaea 6: 54 (1831); W. Weber, Feddes Repert. 95: 589, Abb. 7.1 (1984).

Tillandsia caespitosa n.sp., [Mexico], [Schiede & Deppe] 1007, (HAL, lectotype, ROST, isolectotype).

N o t e : ROST specimen identified by the typical handwriting of A. v. Chamisso. Currently treated as a synonym of *Tillandsia multicaulis* STEUD.

***Tillandsia coarctata* GILLIES ex BAKER [var.] β *pedicellata* MEZ**

in A. & C. DC., Monogr. phan. 9: 865 (1896).

Argentinien, Patagonien, Rio Colorado, Fortin Pisen, 21 May 1879, P.G. Lorentz & G. Niederlein s.n. (GLM, syntype).

Note: Basionym of *Tillandsia pedicellata* (MEZ) A. CAST., the currently accepted name.

***Tillandsia cordobensis* HIERONYMUS**

Icon. descr. pl. 10, pl. 3, fig. 1 (1885).

Argentina, Sierra Achala de Córdoba, Las Encenados, November 1878, G. Hieronymus s.n. (BHUPM, syntype).

Note: Currently treated as a synonym of *Tillandsia virescens* RUIZ & PAV.

***Tillandsia cossonii* BAKER**

J. Bot. 25: 279 (1887).

Mexique, Deserto, 16.12.1865, Bilimek 440. ex herb. E. Cosson (HAL, isotype).

Note: Undoubtly a fragment of the isotype in LE which was seen by W. Weber. This fragment first was kept in Weber's private herbarium under WEB 578 and after his dead was bequeathed to HAL. For some time this species was considered as to a synonym of *Tillandsia prodigiosa* (LEM.) BAKER but more recently it is again accepted at the species level.

***Tillandsia durangensis* RAUH & EHLERS**

Trop. Subtrop. Pflanzenwelt 41: 30, fig. 13 (1983).

Mexico, nördlich Durango auf Felsen, July '81, R. Ehlers s.n. (HAL, isotype).

***Tillandsia edithae* RAUH**

Trop. Subtrop. Pflanzenwelt 8: 19, Abb. 7 (1974).

Bolivia, Dept. La Paz, Prov. Larecaja, Sorata, 2700 m, Krahn K 295, ab hort. Heidelberg 1975, (HAL, isotype).

Note: The type locality given in the protologue is wrong and has been confused by A. Blass (who had brought the plant to W. Rauh's attention) with the data given for K/285 in Krahn's list of field numbers. W. Krahn actually collected this plant in 1964 under his number K/295 in the Dept. Sta. Cruz, Prov. Florida, km 338 along the street from Cochabamba to Sta. Cruz, Quebrada Chaupiuno, 2500 m.

***Tillandsia eggersii* BAKER**

Handb. Bromel. 170 (1889).

Sto. Domingo, Llanos de Rafael, in arboribus, 7 May 1887, [H.F.A.] EGGERS 1806 (BHUPM, HAL, isotypes).

Note: Currently treated as a synonym of *Tillandsia schiedeana* STEUD. subsp. *schiedeana*.

***Tillandsia erubescens* SCHLECHTENDAL var. *arroyoensis* W. WEBER & EHLERS**

Feddes Report 94: 604, Abb. 7 (1983).

Mexico, Dr. Arroyo, 2000 m, 1980, fl. Hort. WEB 286, 25.5.1981, R. Ehlers s.n. (HAL, holotype of the variety).

***Tillandsia erubescens* SCHLECHTENDAL var. *patentibracteata* W. WEBER & EHLERS**

Feddes Repert 94: 607, Abb. 8 (1983).

Mexico, Str. Durango - Mazatlan, III./81, WEB 429, R. Ehlers s.n. (HAL, holotype of the variety).

***Tillandsia excelsa* GRISEBACH**

Fl. Brit. W. I. 597 (1864).

Jamaica, Wullschiägel 1048 (HAL, syntype).

N o t e : The specimen came from WRSL into W. Weber's private herbarium under WEB 676 and after his death has been bequeathed to HAL.

***Tillandsia fasciculata* SWARTZ var. *densispica* MEZ**

in A. & C. DC. Monogr. phan. 9: 683 (1896).

U.S.A., Florida, Merritt's Island, Indian River, July, A.H. Curtiss 2844 (BHUPM, GFW, isolectotype of the variety).

***Tillandsia fasciculata* SWARTZ var. *uncispica* MEZ**

in A. & C. DC., Monogr. phan. 9: 684 (1896).

Cuba, C. Wright 1516a (BHUPM, isolectotype of the variety).

***Tillandsia fresnilloensis* W. WEBER & EHLERS**

Feddes Repert. 94: 609, Abb. 9 (1983).

Mexico, Fresnillo, III./81, R. Ehlers s.n. (HAL, holotype).

***Tillandsia gardneri* LINDLEY var. *cabofrioensis* W. WEBER & EHLERS**

J. Bromeliad Soc. 32: 110, fig. (1982).

Brasil, Ilha Cabo Frio, Juli '81, fl. WEB 325, 24.9.81, R. Ehlers s.n. (HAL, holotype of the variety).

***Tillandsia hieronymi* MEZ**

in A. & C. DC. Monogr. phan. 9: 876 (1896).

Argentinien, an Bäumen bei Córdoba häufig, 12 November 1876, G. Hieronymus [124] (GLM, isolectotype).

N o t e : Currently treated as a synonym of *Tillandsia capillaris* RUIZ & PAV.

***Tillandsia ixoides* GRISEBACH**

Abh. Königl. Ges. Wiss. Göttingen 24: 333 (1897).

Argentina, Flora Entreriana, Concepción del Uruguay, an Algarroben u. Talas am Ufer des Gualeguaychú, October 1877, P.G. Lorentz 1196 (BHUPM, GFW, isotype).

***Tillandsia krahnii* RAUH**

Trop. Subtrop. Pflanzenwelt 33: 9, Abb. 3 (1981).

Peru, Ancash, 17 km nördl. S. Luis, bei Luzuriaga am Río Achunancha, 2300 m, Oct. '79, an Felsen, W. Krahn 595 (HAL, isotype).

***Tillandsia lotteae* II. HROMADNIK**

J. Bromeliad Soc. 28: 263, figs. (1978).

Bolivien, Dept. Chuquisaca, Sucre-Cochabamba km 70, in valle fluminis Río Chico, 1700 m, in rupibus abruptis epiphytica, 20.7.1977, H.&L. Hromadnik 2PB77 (HAL, isotype).

***Tillandsia meridionalis* BAKER var. *subsecundifolia* W. WEBER & EHLERS**

Feddes Repert. 94: 615, Abb. 12 (1983).

Brasilien, Vila Velha, Juli '81, fl. WEB 329, 27.8.81, R. Ehlers s.n. (HAL, holotype of the variety).

***Tillandsia mitlaensis* W. WEBER & EHLERS**

Feddes Repert. 94: 617, Abb. 13 (1983).

Mexico, Mitlan (sic!), III. 81, WEB 283, R. Ehlers s.n. (HAL, holotype).

***Tillandsia mollis* H. HROMADNIK & W. TILL**

Pl. Syst. Evol. 142: 123, Abb. 1-6 (1983).

Bolivia, Departamento Tarija, inter Tarija et Narvaez, ca. 25 km W von Narvaez, prope transitum "Cumbre del Condor", 2700 m, 15.7.1982, H. Hromadnik 9088 (= W. Till 62) (HAL, isotype).

***Tillandsia muhriæ* W. WEBER**

Feddes Repert. 97: 101, Abb. 6 (1986), as "muhrae"; W. Till, J. Bromeliad Soc. 40: 257 (1990).

Argentinien, ex Hort. Seidl, Steyer, floruit WEB 17.5.1983 scapus breve!, WEB 591, D. Muhr s.n. (HAL, holotype).

***Tillandsia nappii* LORENTZ & NIEDERLEIN var. *darwinii* NIEDERLEIN**

in Lorentz & Niederlein, Exped. Río Negro, Bot. 282 (1881).

Argentinien, Patagonien, Laguna Narracó, 7 May 1879 P.G. Lorentz & G. Niederlein s.n. (GLM, isotype).

Note: Currently treated as a synonym of *Tillandsia andicola* GILLIES ex BAKER.

***Tillandsia paniculata* SCHLECHTENDAL & CHAMISSO**

Linnaea 6: 54 (1831); W. Weber, Feddes Repert. 95: 581, Abb. 3.2 (1984).

Tillandsia paniculata, [Mexico], [Schiede & Deppe] 1008 (HAL: 2 fol., ROST, isolectotypes).

Note: ROST specimen identified by the typical handwriting of A. v.Chamisso. W. Weber incorrectly has chosen the specimen in HAL as the lectotype. However, in July 1959 L.B. Smith had revised the specimen in LE as to the lectotype and published later as his only type reference. Hence the decision of Smith has to be followed. Currently treated a a synonym of *Tillandsia deppeana* STEUD.

***Tillandsia pseudocardenasi* W. WEBER**

Feddes Report. 97: 103, Abb. 7 (1986).

Bolivia, Comarapa, 2300 m, WEB 502, H.&L. Hromadnik 5323 (HAL, holotype).

***Tillandsia pseudomontana* W. WEBER & EHLERS**

Feddes Report. 94: 618, Abb. 14 (1983).

Brasilien, Juli '81, WEB 350), [R.] Thielen s.n. (HAL, holotype).

***Tillandsia reclinata* E. PEREIRA & MARTINELLI**

Bradea 3(32): 253, est. 3, fot. 3 (1982); Bradea 4(33): 255, "Errata" (1986).

Brasilia, RJ, Município de Petropolis, Vale das Videiras, Morro do Cuca, Pico de Pindeba, 1750 m, 25.9.80, G. Martinelli 7413 (HAL, isotype).

Note: In Bradea 3(32) in the text of the protologue erroneously Martinelli 606 is given as the type, but fot. 3 shows a herbarium specimen marked as "holotypus" and bearing the number Martinelli 7413. In Bradea 4(33) the Martinelli himself corrected this error, unfortunately not within the printed text but as a loosely added slip of paper entitled "Errata". Following the opinion of the original author, # 7413 is considered as that collection which contains the holotype.

***Tillandsia retorta* GRISEBACH ex BAKER**

J. Bot. 16: 238 (1878).

Argentina, Estancia Germania pr. Córdoba, Junio-Dec. 1874, P.G. Lorentz 125 (BHUPM, isolectotype).

***Tillandsia schiedeana* STEUDEL var. *totolapanensis* W. WEBER & EHLERS**

Feddes Report. 94: 620, Abb. 15 (1983).

Mexico, Tehuantepec, saxicol, III./81, WEB 472, R. Ehlers s.n. (HAL, holotype of the variety).

Note: Currently treated as a synonym of *Tillandsia schiedeana* STEUD. subsp. *glabrior* (L.B. Sm.) C.S. GARDNER.

***Tillandsia tenebra* L. HROMADNIK & W. TILL**

Bromelie 2/1991: 32, Abb. 1-4 (1991).

Argentina, Sierras Pampeanas, Sierra Ventana, Febr.-April 1881, P.G. Lorentz [98] (BHUPM, paratype).

***Tillandsia tortilis* KLOTZSCH ex BAKER subsp. *curvifolia* EHLERS & RAUH**

J. Bromeliad Soc. 40: 167, figs. 7, 8 (1990).

Mexico, Guanajuato (= Guanajuato), auf Fels, IV. 1985, WEB 786, R.&K. Ehlers M850201 (HAL, isotype of the subspecies).

***Tillandsia trichoides* KUNTH**

in Humb., Bonpl. & Kunth, Nov. gen. sp. 1: 290 (1816).

ex Amer. merid., Willdenow dedit, A. v. Humboldt s.n. (HAL, isotype).

Note: Currently treated as a synonym of *Tillandsia usneoides* (L.) L.

***Tillandsia usneoides* (L.) L. fa. *ferruginea* ANDRÉ**

Bromel. Andr. 64 (1889).

Argentinien, an Queñoas und Aliso (*Polylepis racemosa* und *Alnus ferruginea*) bei la Ciénaga in der Sierra de Tucumán, Ende III. 1872, P.G. Lorentz s.n. (GLM, isotype).

***Tillandsia vestita* SCHLECHTENDAL & CHAMISSO**

Linnaea 6: 52 (1831); W. Weber, Feddes Repert. 95: 592, Abb. 8.1 (1984).

Tillandsia vestita n.sp., [Mexico], [Schiede & Deppe] 1004 (HAL, lectotype, ROST, isolectotype).

Note: ROST specimen identified by the typical handwriting of A. v. Camisso. Currently treated as a synonym of *Tillandsia schiedeana* STEUD. subsp. *schiedeana*.

***Tillandsia vestita* WILLDENOW ex SCHULTES & SCHULTES f.**

see under Bromelioideae.

***Tillandsia walter-richteri* W. WEBER**

J. Bromeliad Soc. 34: 102, fig. 2, front cover (1984).

Bolivien, Narvaez, 1800 m, WEB 410, H.&L. Hromadnik 5142 (HAL, holotype, isotypes: WEB 410, 808).

***Vriesea bleheri* ROETH & W. WEBER**

Bradea 2(38): 262, fig. (1978).

Brasilien, Estado de Rio de Janeiro, 1975, cult. in Horto Botanico Halensi, Warmhaus, leg. J. Roeth 3.I.1978, A.&M. Bleher s.n. (HAL, holotype).

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